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(54) Title  
HAIR PRODUCTS CONTAINING DIMETHYL DIALLYL AMMONIUM  
CHLORIDE/ACRYLIC ACID-TYPE POLYMER

(57) Claim

1. A method for improving conditioning properties of  
a hair product comprising adding to said hair  
product an effective amount of a polymer  
comprising:

a.) about 60 to about 99%, by weight of said  
polymer, of a quaternary diallyl dialkyl  
ammonium monomer, wherein alkyl groups are  
independently selected from alkyl groups of 1  
to 18 carbon atoms and wherein said  
quaternary diallyl alkyl ammonium monomer's  
counterion is selected from the group  
consisting bases of acids having an  
ionization constant greater than  $10^{-13}$ .

b.) about 1 to about 40%, by weight of said  
polymer, of an anionic monomer selected of  
the group consisting of acrylic acid and  
methacrylic acid; wherein the weight average  
molecular weight of said polymer ranges from  
about 50,000 to about 10,000,000, as  
determined by gel permeation chromatography.

8. An improved hair product which comprises:

- a. an active agent;
- b. an anionic surfactant;
- c. a copolymer comprising;
  - 1. about 60 to about 99%, by weight of said polymer, of a monomer selected from the group consisting of dimethyldiallyl ammonium chloride and diethyldiallyl ammonium chloride; and
  - 2. about 1 to about 30%, by weight of said polymer, a monomer selected from the group consisting of acrylic acid, and methacrylic acid, wherein said polymer has a weight average molecular weight ranging from about 50,000 to about 10,000,00, as determined by gel permeation chromatography.